Product Change Notice (PCN)

Subject: Add Alternate Bump Location and Backend Location on WLCSP6 Package
Publication Date: 7/30/2021
Effective Date: 10/30/2021

Revision Description:
Initial Release

Description of Change:
This PCN notice is to advise customers that Renesas is adding UAT, Malaysia as an alternate bump as well as an alternate backend location on the products listed in this notice. The alternate location, UAT is the new Renesas's qualified manufacturing location.

There will be no change in the moisture sensitive level.

Table 1: Bump Location Comparison

Descriptions	Existing Bump Location SFA, Korea	Alternate Bump Location UAT, Malaysia
RDL (µm)	TiW / Cu / Cu (0.1 / 0.15 / 5.5 ± 1.5)	Ti / Cu / Cu (0.1 / 0.4 / 5.5 ± 1.5)
UBM (µm)	Ti / Cu / Cu (0.1 / 0.15 / 9 ± 2)	Ti / Cu / Cu (0.1 / 0.4 / 9 ± 2)
POLYMIDE/ PASSIVATION 1 and 2	Asahi BL301 Thickness 7 ± 2µm	Asahi BL301 Thickness 7 ± 2µm
BACK SIDE COATING	Lintech LC2850 Thickness 25µm	Lintech LC2850 Thickness 25µm
SOLDER BALL (Bump)	SAC105	SAC105
SOLDER BALL DIAMETER (µm)	0.220 ± 0.025 (220 ± 25µm)	0.220 ± 0.025 (220 ± 25µm)

Table 2: Backend Location Comparison

Descriptions	Existing Backend Location		Alternate Backend Location UAT, Malaysia
	SFA, Korea	ASEM, Malaysia	
Process Flow	Wafer Mount → Dicing → AOI → UV cure → PNP with 5S Inspection + TNR → Packing → Shipping		
Sawing Equipment	Disco - DFD6361	Disco- DFD6361	Disco- DFD6362
Pick and Place; Tape and Reel Equipment	MIT-C330	STI - Isort Maxx	MI 20
AOI	Condor-PD103X	Rudolph-NSX330	Rudolph-NSX105
Packing Materials	Same carrier tape & cover tape		
Labeling	Same labeling		
Mass Production since year	2014	2013	New

Notes: PNP denotes Pick and Place, TNR denotes Tape and Reel

Affected Product List: TS5111-Z2AHRI, TS5111-Z2AHRI8.

,

Reason for Change:
This change will allow the flexibility to ship from all the qualified facilities and will provide the increased capacity and flexibility.

Impact on Fit, Form, Function, Quality & Reliability:
The change will have no impact on the form, fit, function, quality, reliability and environmental compliance of the products.

Product Identification:
Lot # with "SL" prefix denotes SFA, Korea and “UA” prefix denotes UAT, Malaysia.

Qualification Status: Refer Appendix A
Sample Availability Date: 9/30/2021
Device Material Declaration: Available upon request.

Note:

1. Acknowledgement must be received by Renesas within 30 days or Renesas will consider the change as approved.
2. If timely acknowledgement is provided by Customer, then Customer shall have 90 days from the date of receipt of this PCN to make any objections to this PCN. If Customer fails to make objections to this PCN within 90 days of the receipt of the PCN then Renesas will consisder the PCN changes as approved.
3. If customer cannot accept the PCN then customer must provide Renesas with a last time buy demand and purchase order.

For additional information regarding this notice, please contact idt-pcn@lm.renesas.com

Appendix A - Qualification Results

Affected Package: WLCSP6
Qual Vehicle: WLCSP6
Assembly Material: As shown in page 1
Qual Plan & Results: Tests are in accordance with JEDEC47 recommended tests.

Test Descriptions	Test Method	Test Results (Rej/SS)		
		Lot 1	Lot 2	Lot 3
* Temperature Cycling (-55°C to 125°C, 700 cycles)	JESD22-A104	0/25	0/25	0/25
* HAST - biased (130 °C/85% RH, 96 Hrs)	JESD22-A110	0/25	0/25	0/25
* HAST - unbiased (130 °C/85% RH, 96 Hrs)	JESD22-A118	0/25	0/25	0/25
High Temperature Storage Bake (150°C, 1000 Hrs)	JESD22-A103	0/25	0/25	0/25
Physical Dimensions	JESD22-B100	0/30	0/30	0/30
Moisture Sensitivity Level, MSL	J-STD-20 / MSL 1, 260 °C	0/25	0/25	0/25

**Tests were subjected to Preconditioning per JESD22-A113 prior to stress test*

IMPORTANT NOTICE AND DISCLAIMER

RENESAS ELECTRONICS CORPORATION AND ITS SUBSIDIARIES (“RENESAS”) PROVIDES TECHNICAL SPECIFICATIONS AND RELIABILITY DATA (INCLUDING DATASHEETS), DESIGN RESOURCES (INCLUDING REFERENCE DESIGNS), APPLICATION OR OTHER DESIGN ADVICE, WEB TOOLS, SAFETY INFORMATION, AND OTHER RESOURCES “AS IS” AND WITH ALL FAULTS, AND DISCLAIMS ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR NON-INFRINGEMENT OF THIRD-PARTY INTELLECTUAL PROPERTY RIGHTS.

These resources are intended for developers who are designing with Renesas products. You are solely responsible for (1) selecting the appropriate products for your application, (2) designing, validating, and testing your application, and (3) ensuring your application meets applicable standards, and any other safety, security, or other requirements. These resources are subject to change without notice. Renesas grants you permission to use these resources only to develop an application that uses Renesas products. Other reproduction or use of these resources is strictly prohibited. No license is granted to any other Renesas intellectual property or to any third-party intellectual property. Renesas disclaims responsibility for, and you will fully indemnify Renesas and its representatives against, any claims, damages, costs, losses, or liabilities arising from your use of these resources. Renesas' products are provided only subject to Renesas' Terms and Conditions of Sale or other applicable terms agreed to in writing. No use of any Renesas resources expands or otherwise alters any applicable warranties or warranty disclaimers for these products.

(Disclaimer Rev.1.01)

Corporate Headquarters

TOYOSU FORESIA, 3-2-24 Toyosu,
Koto-ku, Tokyo 135-0061, Japan
www.renesas.com

Trademarks

Renesas and the Renesas logo are trademarks of Renesas Electronics Corporation. All trademarks and registered trademarks are the property of their respective owners.

Contact Information

For further information on a product, technology, the most up-to-date version of a document, or your nearest sales office, please visit www.renesas.com/contact-us/.

© 2026 Renesas Electronics Corporation. All rights reserved.